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# Molecular Clock

Behaviorism

tradeoff

Demis Hassabis Deepmind potentially a meta-solution to any problem Deepmind Reward is Enough

“causation” Demis Hassabis any problem

Demis Hassabis any problem

[illegible]

SAE level 4

Waymo SAE level 4  
Waymo crash data trade secret data

SAE level 4

AlphaGo Zero

Leukotomy Leukotomy  
Leukotomy selfish gene

logical positivism logical empiricism

Universal Approximation Theorem Nash Embedding Theorems  
word-embedding Vector Space

Deepmind AlphaGo Zero

reward Deepmind Reward is Enough

A Treatise on Probability causation

causation 因果關係

causation 因果關係

causation 因果關係

1. causation 因果關係

2. causation 因果關係

3. causation 因果關係

“Confucius taught that marriage lies at the foundation of government.” causation 因果關係

Marc Aurel Stein John Leighton Stuart 因果關係

causation 因果關係

causation 因果關係

Demis Hassabis 因果關係

causation 因果關係

Totally Ordered Set 因果關係

causation 因果關係

causation 因果關係

causation 因果關係

[\*] causation 因果關係

causation 因果關係



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context

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First, if scientists have tried, and failed, to come up with an alternative theory that explains a phenomenon well, that counts as evidence in favor of the original theory. Second, if a theory keeps seeming like a better idea the more you study it, that's another plus-one. And if a line of thought produced a theory that evidence later supported, chances are it will again.

Historiae  
 Naturalis Philosophiae Naturalis scientia naturalis  
 Philosophiae

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Are there really many worlds in the "Many-worlds interpretation" of Quantum Mechanics?the development of «decoherence theory» revealed that, using the standard formalism of quantum mechanics, macroscopically distinct branches of the wavefunction were almost entirely free from interference and evolve approximately classically almost

The Many-worlds Interpretation

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SAE level 4  
SAE level 4  
SAE level 5

1. [UTStarcom](#) のクラウド環境構築事例
2. [Google Cloud](#) を活用したクラウド環境構築事例
3. WebEx、Zoom などによるリモートワーク環境構築事例
4. Aldebaran Robotics の ARM ベースの Pepper の開発事例

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[illegible]

common sense

Historia Naturalis

[illegible]



Philosophiae Naturalis

Philosophiae  
Naturalis scientia naturalis

Marvin Minsky The Emotion Machine: Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind emotion machine Turing Test

Minsky

AI: A Modern Approach SAE level 4

Pepper emotion

consciousness

killing

motif

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~~~~~ motif~~~~~  
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1~~~~~

2~~~~~

3~~~~~

4~~~~~

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Wikipedia ~~~ motif~~~ Fate motif~~~~~  
~~~~~ wikipedia ~~~~

[https://en.wikipedia.org/wiki/Symphony\\_No.\\_5\\_\(Beethoven\)#Fate\\_motif](https://en.wikipedia.org/wiki/Symphony_No._5_(Beethoven)#Fate_motif)

## Fate motif

The initial motif of the symphony has sometimes been credited with symbolic significance as a representation of Fate knocking at the door. This idea comes from Beethoven's secretary and factotum Anton Schindler, who wrote, many years after Beethoven's death:

The composer himself provided the key to these depths when one day, in this author's presence, he pointed to the beginning of the first movement and expressed in these words the fundamental idea of his work: "Thus Fate knocks at the door!"[30]

Schindler's testimony concerning any point of Beethoven's life is disparaged by experts (he is believed to have forged entries in Beethoven's so-called "conversation books", the books in which the deaf Beethoven got others to write their side of conversations with him).[31] Moreover, it is often commented that Schindler offered a highly romanticized view of the composer.

There is another tale concerning the same motif; the version given here is from Antony Hopkins's description of the symphony.[2] Carl Czerny (Beethoven's pupil, who premiered the "Emperor" Concerto in Vienna) claimed that "the little pattern of

notes had come to [Beethoven] from a yellow-hammer's song, heard as he walked in the Prater-park in Vienna." Hopkins further remarks that "given the choice between a yellow-hammer and Fate-at-the-door, the public has preferred the more dramatic myth, though Czerny's account is too unlikely to have been invented."

In his Omnibus television lecture series in 1954, Leonard Bernstein likened the Fate Motif to the four note coda common to symphonies. These notes would terminate the symphony as a musical coda, but for Beethoven they become a motif repeating throughout the work for a very different and dramatic effect, he says.[32]

Evaluations of these interpretations tend to be skeptical. "The popular legend that Beethoven intended this grand exordium of the symphony to suggest 'Fate Knocking at the gate' is apocryphal; Beethoven's pupil, Ferdinand Ries, was really author of this would-be poetic exegesis, which Beethoven received very sarcastically when Ries imparted it to him." [18] Elizabeth Schwarm Glesner remarks that "Beethoven had been known to say nearly anything to relieve himself of questioning pests"; this might be taken to impugn both tales.[33]